17. (Amended) A method for removing target molecules and target complex molecules from a patient's blood, comprising:

circulating a stream of the patient's blood through a very large pore hemofilter having a nominal molecular weight cutoff greater than approximately 150,000 Daltons to sieve target molecules and target complex molecules from the blood stream and the nominal molecular weight cutoff less than approximately 1,000,000 Daltons to avoid removal of significant amounts of immunoglobulins to prevent increasing the risk of opportunistic infection;

removing an ultrafiltrate containing the target molecules and target complex molecules from the blood stream using the hemofilter;

replacing the ultrafiltrate removed from the blood stream with a replacement fluid having clean target receptor molecules;

providing sufficient clean albumin to maintain adequate plasma oncotic pressure; and

providing the clean albumin and clean target receptor molecules to attract additional inflammatory mediators and toxins from tissue spaces and tissue binding sites in a patient.

18. The method of Claim 17 further comprising infusion of the replacement fluid directly into the patient.

19. The method of Claim 17 further comprising infusion of the replacement fluid into a blood flow circuit associated with the hemofilter.

20. The method of Claim 17 further comprising infusion of the replacement fluid directly into the patient and into a blood flow circuit associated with the hemofilter.

Please add the following new Claims:

21. (New) The method of Claim 17 wherein target molecules comprise toxins unbound and bound to albumin in the blood.